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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,650	02/22/2002	Frank Gottwald	10191/2199	8172

26646 7590 10/20/2003

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NEW YORK, NY 10004

EXAMINER

ALSOMIRI, ISAM A

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,650

Applicant(s)

GOTTWALD ET AL.

Examiner

Isam A Alsomiri

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6-7, 17, 19, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Rose US 5,537,117. Referring to claims 1 and 17, Rose discloses in figure 1 a radar device and teaches suppressing interference in the radar device, transmitting signals with a carrier frequency and with a pulse repetition frequency (see Abstract), varying the pulse repetition frequency during operation of the radar device, and varying the carrier frequency during operation of the radar device (see col. 1 lines 51-58, col. 4 lines 25-35, col. 7 lines 30-35).

Referring to claims 3 and 19, Rose teaches the pulse repetition frequency is varied deterministically (see col. 7 lines 30-35).

Referring to claim 6, Rose teaches varying the RF carrier frequency by frequency modulation (see col. 4 lines 25-35).

Referring to claims 7 and 22, Rose teaches varying the RF carrier frequency by frequency modulation (see col. 4 lines 25-35). Rose is silent about producing a virtual intermediate frequency. However, it's inherent that Rose's system does provide a virtual intermediate frequency because the system does mix the received signal with the modulated carrier frequency (see figure 2 [210-COHO-mixer], the figure is not labeled clearly, but it's clear

that the system does provide the virtual intermediate frequency), and analyzing the a received signal at the virtual intermediate frequency (see figure 2 [270]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose US 5,537,117 in view Alitz US 4,717,917. Referring to claims 4 and 20, Rose does not teach varying the pulse repetition frequency chaotically, Alitz teaches utilizing random pulse repetition frequency, which reads on the claimed varying chaotically (see Abstract). It would have been obvious to modify Rose's system to vary the pulse repetition frequency chaotically to eliminate the possibility of interference from other devices in close proximity.

Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose US 5,537,117 in view Olsson US 5,109,231. Referring to claims 5 and 21, Rose teaches varying the carrier frequency as mentioned above. Rose is silent about varying the carrier frequency by phase modulation. However, changing the carrier frequency by phase modulation is known. Olsson teaches varying the carrier frequency by frequency modulation, phase modulation, or both, which reads on the claimed "by phase modulation" (see col. 4 lines 35-51).

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It would have been obvious to modify Rose's system to vary the carrier frequency by phase modulation to suppress environmental interference and to minimize interference with other systems.

Claims 8 and 23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rose US 5,537,117 in view of Charlot 3,979,752. Referring to claims 8 and 23, Rose teaches varying the carrier frequency as mentioned above. Rose is silent about varying the carrier frequency by a sudden frequency change method, Charlot teaches randomly changing the carrier frequency, which reads on the claimed varying the carrier frequency by a sudden frequency change method (see col. 1 lines 15-26). It would have been obvious to modify Rose's system to further include changing the carrier frequency by a sudden change method to minimize the interference and the distortions.

Response to Arguments

Applicant's arguments with respect to claims 1 and 17 (and the dependent claims thereof) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited to Brookner show a radar system and varying the PRF and the carrier frequency. The Brookner reference can be used for a 102 rejection at least over claims 1 and 17.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isam A Alsomiri whose telephone number is 703-305-5702. The examiner can normally be reached on Monday-Thursday and every other Friday (8:30-5:00).

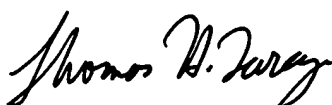
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H Tarcza can be reached on 703-306-4171. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Isam Alsomiri



October 13, 2003



THOMAS H. TARCZA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600